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ABSTRACT

When California implemented its class-size reduction (CSR) program in 1996, a number of questions regarding financial burdens, teacher shortages, scarcity of facilities, and collective bargaining were raised. This first-year implementation study aims to provide some contextual information as background for answering questions, to clarify these issues and to provide a more comprehensive, long-term evaluation of CSR, contextual information. In section 1, the introduction examines the status of the class-size reduction initiative and discusses what the research says. Section 2 provides the study design and then describes the major findings, focusing on the effects on special populations, on staff development, on classroom practices, on parent involvement, and on implementation challenges. Section 3 contains detailed coverage of findings in these same areas of focus. Section 4 provides an overview of policy and research implications of CSR. The emphasis throughout the report is on the perceptions of school-level educators, so as to provide evidence of how CSR unfolded in particular schools across California in its first year of implementation. Findings show that district officials, teachers, principals, and coordinators generally believe that CSR will lead to high student achievement. Some specific areas of CSR that warrant more careful evaluation are provided. (Contains 36 endnotes and 51 references.) (RJM)

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California's Class Size Reduction

Implications for Equity, Practice & Implementation

March 1998

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PACE
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California's Class Size Reduction

Implications for Equity, Practice & Implementation

March 1998

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INTRODUCTION

STATUS OF CLASS SIZE REDUCTION INITIATIVE

In July 1996, California embarked on its largest ever education reform: a nearly $1 billion class size reduction effort to improve literacy in the primary grades. Now in its second year, the Class Size Reduction (CSR) initiative provides $800 (up from $650 the first year) per student to schools that reduce class size to 20 students or fewer in first grade, second grade and, then, third grade and/or kindergarten.[1]

The impetus for CSR came from several factors. A revived state economy created a revenue windfall. Under Proposition 98, a minimum amount of this surplus must be allocated to education. The decision to funnel the additional money to CSR stemmed from the belief that smaller classes would help improve early literacy, an area of much concern in light of California's scores on national tests. The National Assessment of Educational Progress (NAEP), for example, showed that in 1994 only 18 percent of California's students were rated proficient or advanced in reading.[2] In 1994, California's national ranking on NAEP was second from last in reading.[3]

Whether this lackluster performance was due to the content of the state's language arts curriculum frameworks, the increasing number of uncredentialed teachers, inadequate funding for schools or other reasons, is a matter of debate.[4] California's class size, however, was undeniably among the highest in the nation, averaging approximately 28.6 students per K-3 classroom before the initiative was passed.[5]

Hopes are high that CSR will significantly improve student performance. Surveys show tremendous enthusiasm among educators, and news stories report widespread public support.[6] But whether CSR will prove to be *the* crucial lever for enhancing California's early literacy and overall academic achievement remains to be seen.

Facts on California's CSR Initiative

- In 1996-97 nearly $1 billion and in 1997-98 nearly $1.5 billion were allocated to support the reduction of class size, fund facilities and train teachers.
- According to Assembly Bill 354, districts can implement class size in up to three grades, with priority given to 1st grade, then 2nd grade, and then either 3rd grade or kindergarten.
- In 1996-97, school districts received either $650 per student in a class of no more than 20 students for a *full* day or $325 for each student in a class of no more than 20 students for half a day. In 1997-98, they are receiving $800 per pupil for a full day and $400 for half a day.
- 18,400 new classes were added in 1996-97, an increase of 28%.
- In 1997-98, of the 895 eligible school districts, 873 are receiving CSR funds.
- In 1997-98, 99% of all 1st graders and 95% of all 2nd graders were enrolled in smaller size classrooms during that first year.

Sources: California Department of Education (1998), Legislative Analyst's Office (1997)

As a massive experiment, California's CSR program is being closely watched by other states. Since its enactment about half of the other states have passed or are considering class size legislation, including Nevada, New York, North Carolina, Utah, and Wisconsin. The idea is catching on internationally as well. In 1997, officials in England and Canada put forward proposals to reduce class size.

WHAT THE RESEARCH SAYS

Optimism surrounding CSR is not without reason. Research suggests that reducing class size is likely to improve academic achievement.[7] Yet there remains disagreement about the magnitude of that achievement gain and how small a class needs to be before a strong effect is observed.[8] Other research is more skeptical, concluding that class size reduction policies have little or no relationship to student performance.[9]

Tennessee STAR Evaluation

A recent and widely-cited study, which some observers say influenced California's CSR legislation, is the evaluation of the Student Teacher Achievement Ratio (STAR) Project in Tennessee. Unlike most education studies, the STAR evaluation was scientifically controlled, including the random selection of schools, random assignment of students and tracking of student performance over four years.[10] Findings from that longitudinal study suggest: 1) small classes (17 pupils or fewer) are more effective academically than larger classes (22-26 students) in primary grades; 2) the advantage of small classes is the greatest for minority students in urban schools, and 3) gains are primarily attributed to students spending more time engaged in learning and teachers more time instructing and less time managing their classrooms.[11]

The STAR program was able to control for certain conditions in ways California did not. Therefore, others caution against generalizing results from the Tennessee study to the California experience, especially given the speed, sheer size and complexity of its effort.[12] Factors cited as unique to California include: 1) the bigger scale of implementation (whole state versus a relatively small controlled study); 2) the pre-existing teacher shortage and the large numbers of teachers that had to be hired on an emergency credential basis (whereas all of Tennessee's STAR teachers were experienced and fully certified); 3) the diversity of California's racial and linguistic minority student population (as compared to Tennessee's primarily African-American and white population), and 4) the larger average class size of California's schools (compared to that of Tennessee's).

Other Influences on Student Performance

Other research suggests that what actually happens in the classroom may influence learning as much or more than the number of students there.[13] The quality of teaching, the type of instructional strategies used, the curriculum content and student-teacher interactions, along with class size, also matter.[14] Finally, student motivation and family educational and economic background play a role in determining achievement outcomes.[15]

Differences in district resources and implementation strategies may affect the results of CSR. As the Policy Analysis for California Education(PACE)-WestEd study shows, the playing field among California's districts and schools was not level when CSR passed. Some districts had efforts already underway to reduce class sizes and were preparing to hire teachers and locate facilities. Resources for implementing CSR also vary. With the help of CSR state grants, some districts were able to lower class sizes in all three grades, while others struggled to find enough teachers and facilities for just one grade.

Surveys of California's CSR Initiative

Other surveys during the initiative's first year indicate that districts face common challenges but vary widely in the degree to which these are obstacles to implementation:

- **Unequal Financial Burdens**
  According to the approximately 150 respondents to a survey completed in the Spring of 1997 by the Legislative Analyst's Office (LAO), the cost of implementing CSR varies among different size districts from about zero to $1,000, depending on the initial class size, the average student-to-teacher ratio actually maintained, the cost of teachers hired, and ancillary costs, such as custodial and clerical

services.[16] A study conducted by the School Services of California, Inc. also found variation among districts in the cost of implementing CSR above the state grant amount.[17]

- **Teacher Shortages**
  On average, bigger districts reported hiring less-qualified teachers, whereas smaller districts reported hiring teachers who were more skilled than new hires in previous years, according to the LAO survey (1997).

- **Scarcity of Facilities**
  Of 131 districts that responded to the survey conducted by School Services of California, Inc., more than half cited facilities issues as significant barriers to implementing CSR. Their report also claims that the remaining options for securing more facilities in the future would be costly.[18]

- **Collective Bargaining Issues**
  Of the 159 districts that responded to a survey conducted by the California Research Bureau, one in four indicated that collective bargaining issues made CSR implementation difficult. Larger to medium-sized districts reported much greater problems than smaller districts.[19]

The pattern of evidence emerging from these studies suggests that districts face resource, facility, and teacher constraints to implementation. The critical question is whether those having the hardest time overcoming such obstacles will show different achievement results.

Another set of unanswered questions relate to CSR's effect on teaching and learning in the classroom. A handful of districts have begun classroom data collection. They report wide-spread teacher enthusiasm for CSR and say it is benefiting student learning.[20] Still unknown is how CSR has improved the conditions for, and learning opportunities of special populations, such as students with disabilities and limited-English proficiency. Are teachers rethinking or changing their instructional practice or are they doing what they have always done, perhaps better and quicker? To what extent do years of experience, credentials and professional development make a difference when looking at student performance in smaller classes?

PURPOSE OF THIS STUDY

This first-year implementation study aims to provide some contextual information as background for answering these and other important questions. Another purpose is to help refine some of the policy and research questions that a more extensive and comprehensive evaluation of CSR will then explore in greater depth. That larger evaluation is currently being undertaken by a consortium of research organizations who have joined forces to provide California's policy makers and educators with formative and summative information about the CSR initiative (see box on next page).

California's Class Size Research Consortium

Too often, multiple, small evaluations of major reforms result in a mixed bag of findings that are too small individually to be generalizable or are difficult to reconcile. To avoid that problem, an evaluation research consortium, which includes the American Institutes for Research (AIR), EdSource, Policy Analysis for California Education (PACE), RAND, and WestEd has formed to mount a study that is coordinated, comprehensive, and–above all–*useful* to educators and policy makers.

Over the past year, the consortium has convened officials from school districts and county offices of education, along with representatives from the California Department of Education, Association of California School Administrators, California Teachers' Association, California Federation of Teachers, California School Boards Association and California PTA. Other universities and research organizations also participated.

From these conversations, the consortium designed an evaluation that not only aims to provide summative information about the impact on student achievement, but also gives practitioners and decision makers formative information about specific practices and policies that promote improved student achievement and literacy.

PACE-WestEd's report of the initiative's first year of implementation constitutes just one of several sources of information the consortium will use to refine its research questions and evaluation approach.

Because earlier studies have primarily relied on surveys of district officials about the facilities, finances, teacher supply and other logistical issues involved in implementing CSR, the PACE-WestEd study focused its data collection at the school level. We also purposefully chose to collect most of our data from urban districts and schools, since many of these districts reportedly faced a more complex set of implementation challenges. While some general information was sought about the implementation of CSR, many of these issues were already adequately covered through other state surveys.[21] Thus, we chose to explore the following issues:

- **Effect on Special Populations**
  How have special populations been affected, particularly students served by English-language development and special education programs? How have the scope and quality of services provided to special populations changed?

- **Teacher Credentials and Distribution**
  What are the qualifications of teachers hired as a result of CSR? What factors influenced the assignment of teachers to schools and classrooms?

- **District and School Staff Development**
  How much and what type of professional development has been provided? Are teachers in smaller classes receiving particular training?

- **Teacher Reports of Their Classroom Practices**
  What are teachers doing differently as a result of class size reduction? What difference has class size reduction made on their ability to instruct students?

- **Parental Response and Involvement**
  What has been the parental response to CSR? Has their involvement in schools been affected, and, if so, how?

- **Implementation Challenges**
  How have schools converted space to create additional classrooms? What programs have been affected as a result?

STUDY DESIGN

Most of our data was collected from large urban districts. Although we intended to compare challenges faced by urban and non-urban districts, we were unable to do so. Because urban districts have reportedly faced particular challenges in implementing CSR, our findings only pertain to other large urban districts—and are not

representative of all districts and schools across the state. We therefore refer to our sample of schools and districts as purposive rather than random.

Selection of Districts

In conducting interviews and surveys of district level information, four large urban districts (two in Northern California, two in Southern California) were among a purposive sample of 12. Student enrollment in these urban districts range from 60,000 to 125,000 pupils. The remaining eight districts were chosen according to: 1) per-pupil expenditures, 2) enrollment, and 3) percentage of Limited-English-Proficient students. Districts were selected as being high (above 75th percentile) or low (below 25th percentile) in the range of the previous three variables. Districts that fell into eight cells, ranging from "low-expenditures, low-enrollment, low-percentage of LEP students" to high in all categories. One district was then selected from each cell, taking into consideration the geographic location and the proximity to research staff to accommodate in-person interviews when necessary or appropriate.

Selection of Schools

In selecting schools, we drew from the above-mentioned district sample and one additional urban district in Southern California, which serves approximately 625,000 students. As such, schools were selected from 13 districts, including five urban districts. Using the California Basic Educational Data System (CBEDS, 1995-96), we generated a list of all schools containing grades K-3 (excluding charter schools) for each of the 13 districts. For each of the five urban districts, we ranked schools according to LEP percentage and then divided this sample into thirds. From each third, seven schools were randomly selected, so that a total of 21 schools from each of the five urban districts was included in our purposive sample. This stratified random sample assures that California's diversity is adequately represented, in terms of both income and ethnicity. We also were interested in focusing this study on LEP student populations. From four of the remaining eight districts, we randomly selected five schools per district without stratifying by LEP population (because of the small number of schools located within these districts). Each of the remaining four districts contained only one school, which also was selected. In sum, 129 schools were selected to participate.

We were unable to contact 19 schools and 20 others declined to participate. When such schools were located in the five urban districts, they were randomly replaced with another school in the same stratum. If the school was within the other districts, it was replaced. In the end, we were able to sample 90 schools: 78 schools from the five urban districts and 12 from the remaining districts (see figure 1).

Figure 1: District profiles (based on school sample)

District	Number Of Schools Surveyed	Average* School Total Enrollment	Average* LEP%
1	18	784	35.3%
2	15	731	35.7%
3	17	856	47.2%
4	15	644	25.5%
5	13	468	36.4%
6-13 (non-urban)	12	413	12.6%

*CBEDS, 1995-96

Data Collection Methods

Four interview protocols were used with district level officials. Depending on availability, a combination of phone and/or in-person interviews was conducted, followed by short questionnaires. The primary contact at each district was the person (or people) "most responsible for overseeing the class size reduction initiative." In some cases, this was a Superintendent or Assistant Superintendent, but could also have been a Director of Elementary Education or another program director. We also asked to speak with those most knowledgeable

regarding the impact CSR was having on LEP programs, special education programs, and professional development services at the district. In a few cases, especially in smaller districts, there was one respondent for all four interviews. In larger districts, we often spoke with six or seven respondents, because many of the issues we were exploring spanned across several district offices and program areas.

To collect data from each school, we conducted 25-minute phone interviews with members of the following four cohorts: teachers in a 20:1 class, principals, bilingual education coordinators, and resource specialists who oversee special education. In some cases, principals preferred that we speak with their vice-principal instead. When there was no resource specialist or coordinator, we spoke with the individual most responsible for such services. To minimize sampling bias when selecting a teacher, we asked principals to provide names of five teachers working in reduced classes. We then randomly selected one. Teachers varied in terms of experience and the grade they taught (see figures 2 & 3). Due to time constraints, we were not able to contact representatives from each of our four cohorts at each school. Therefore, although we sampled 90 schools, we actually interviewed 86 principals, 76 teachers, 64 bilingual coordinators, and 58 resource specialists (see figure 4a on next page).

Figure 2: Teacher experience for entire sample

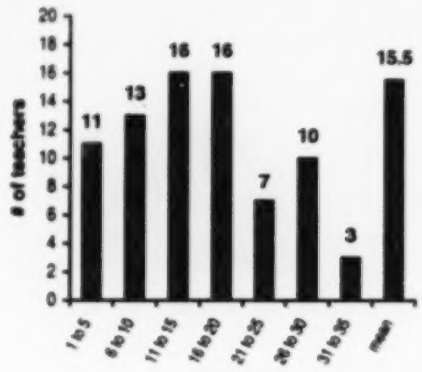


Figure 3: Number of teachers sampled by grade level

Kinder-garten	1st Grade	2nd Grade	3rd Grade	Sample Total
15	40	20	1	76

Figure 4a: Respondents by district

District	# of Schools	Principals	Teachers	Bilingual Coordinators	Resource Specialists
1 Urban	18	18	18	11	18
2 Urban	15	15	15	12	11
3 Urban	17	17	13	14	10
4 Urban	15	12	13	9	13
5 Urban	13	12	8	9	2
6-13 (Non-Urban)	12	12	9	9	4
Total	**90**	**86**	**76**	**64**	**58**

To capture the particular perceptions of each individual, four different staff-specific questionnaires were developed, consisting of both open-ended and discrete questions. The questionnaires vary, but topics often overlap. As figure 4b shows, topics include: implications for students, particularly LEP and special education student populations; qualifications of teachers and classroom practices; staff development issues; parental involvement; and general challenges posed by CSR implementation (see figure 4b).

Figure 4b: Data collection methods by research topics

	Topic Area						
Methods	LEP	Special Education	Teacher Credentials	Staff Development	Classroom Practices	Parental Involvement	Implementation Challenges
Phone/Personal Interviews							
District Administrators							
Primary Contact			✓	✓		✓	✓
Special Education		✓	✓				✓
LEP	✓		✓				✓
Staff Development	✓	✓	✓	✓			✓
School Personnel							
Principal	✓	✓	✓	✓			✓
Teacher	✓	✓	✓	✓	✓	✓	✓
LEP Coordinator	✓		✓	✓		✓	✓
Resource Specialist		✓					✓
Follow-up District Surveys							
Special Education		✓	✓	✓		✓	✓
LEP	✓		✓	✓		✓	✓

▸Section 2

SUMMARY OF MAJOR FINDINGS

EFFECT ON SPECIAL POPULATIONS

Below is a summary of major findings, covered in more detail in the following section.

Districts and schools report several advantages for LEP students, but also report that many are taught by uncredentialed teachers.
Nearly all principals and teachers, and three-fourths of 64 bilingual coordinators, report benefits for LEP students. Among the benefits cited are more one-to-one teacher-student interactions and improved classroom climate. However, many LEP students are being taught by teachers without credentials. According to data collected from principals, approximately 40 percent of newly-hired teachers in our sample are working without any state credential and more than half are not certified to teach LEP students—that is they do not have a CLAD or B-CLAD credential. In three of the five urban districts we interviewed, schools serving greater percentages of LEP students are hiring smaller percentages of teachers certified to work with these students, compared to schools serving smaller percentages of LEP children.

Districts and schools remain optimistic that CSR will benefit special education students, but raise concerns about staff transfers and shortages of space.
Nearly all school resource specialists sampled reported that CSR makes it "easier" to mainstream special education students into general classrooms. Most district administrators also responded that smaller classes are more conducive to providing an inclusive education program. In urban districts, however, some central office administrators and principals reported that special education teachers have opted to transfer to general education, and they cannot find qualified replacements. Space shortages also have posed challenges. A few specialists and principals reported that classrooms reserved for special education prior to CSR are now used for general education.

STAFF DEVELOPMENT

Districts and schools report that CSR training requirements are complementary, but shortages of substitutes keep some teachers from attending.
According to 70 percent of teachers interviewed, their district and school in-service programs address smaller class size. A few district administrators maintain that CSR requirements dovetail with training programs implemented before CSR, enhancing and making current programs more comprehensive. Still, district documents related to professional development rarely included references to smaller class size. In some schools, due to depleted substitute pools, principals reported difficulty in finding staff to fill-in while teachers were away for in-service, preventing some teachers from attending training sessions.

CLASSROOM PRACTICES

Teachers report improvements in instructional pace, curriculum coverage and classroom climate.
Approximately 60 percent of teachers in the study's sample report that instruction is occurring at a faster pace and that there is more in-depth coverage of curriculum. Eighty-four percent report fewer student disruptions and say students are more motivated than in previous years. Two-thirds report that they have been able to improve assessment techniques and provide more small group instruction. However, nearly 65 percent of teachers report spending additional time in whole-class instruction as well. Approximately one-third of teachers report no changes in their instructional approach. And when teachers who did report changing activities were asked to explain, many said they actually have not changed practices, but rather,

are able to do more of what they were already doing and, according to them, doing it better.

PARENTAL INVOLVEMENT

Districts and schools claim that parents are enthusiastic about class size reduction, but there has been no change in parental involvement.

Eighty-four percent of teachers in the study's sample report that parents are not spending more time helping in the classroom, and nearly 75 percent say that parents do not more regularly attend meetings. When parents have discussed CSR, according to teachers, their response has been "enthusiastic" and "supportive."

IMPLEMENTATION CHALLENGES

Districts and schools report problems related to facilities and space.

Due to shortages of portable classrooms and other facility constraints, some teachers are teaching in libraries, auditoriums, and other modified classrooms. One-fourth of principals report doubling-up classes, where two teachers and forty students share one classroom.

▸Section 3

DETAILED COVERAGE OF FINDINGS

EFFECT ON SPECIAL POPULATIONS

Language Development Programs and Students

Educators are optimistic that LEP students are benefiting from smaller class size. Most teachers report spending more time working with these students individually, and say it is easier to identify each child's particular strengths and weaknesses. Difficulties remain, however: at the time of our interviews, only three of 76 teachers reported having earned a BCLAD or CLAD credential; most teachers do not speak these students' native languages; many have not received appropriate training to work with this population; uncredentialed teachers are disproportionately represented in schools with large percentages of LEP students; there is a shortage and redistribution of teacher aides; and the 20:1 cap has made it difficult to assign LEP students to appropriate language development classrooms. While most of these challenges existed prior to CSR, the initiative has reportedly made matters worse.

Improved Classroom Climate

Most sampled educators report that CSR is having a positive effect on LEP students, largely due to increased one-to-one interaction between students and teachers. As many bilingual coordinators explained, teachers can get to know each child, his or her particular needs, then apply more appropriate teaching strategies. Nearly all teachers agreed that smaller classes create more nurturing learning environments, where children seem more patient with one another and more willing to share space and materials. Several report that LEP students, sometimes too intimidated to speak English, are now more willing to try and have more opportunities to practice. About half of coordinators also report achievement gains, maintaining that students' oral proficiency and reading skills are improving at faster rates than in previous years. Of course, a more careful evaluation, involving independent evidence on actual achievement, is required to verify this claim.

Shortages of Credentialed Teachers

While bilingual coordinators expect that more individualized instruction will allow LEP students to make faster, smoother transitions to English, nearly 25 percent report disadvantages associated with CSR. Problems generally stem from state-wide shortages of fully trained-teachers—a pre-existing situation that has been worsened by the initiative. In 1996-97, California schools served over one million Spanish speaking LEP students, plus more than 250,000 other students whose native language was not English.[22] Yet there is only one fully-qualified bilingual teacher for every 98 LEP students.[23] Data taken from the California Department of Education's Language Census Data, indicates that California needs approximately 28,000 additional teachers to meet existing needs.[24] According to the Commission on Teacher Preparation and Licensing, between January 1996 and February 1997, the number of emergency permits more than doubled to 8,319; and the Legislative Analyst's Office (1997) reports that 30 percent of CSR-hired teachers are not credentialed. Our findings reflect these statewide trends.

Principals were surveyed about the number and credentials of teachers they hired. According to data collected from principal respondents, on average, 40 percent of newly-hired teachers are working only with emergency credentials. (Figure 5 shows the percentage of teachers with and without credentials for each district.) More than half of new hires are not certified to teach LEP students. Among schools we sampled in the urban district that serves more LEP students than any other district in the nation, only one in every six hires had earned "LEP credentials," i.e., BCLAD,CLAD.[25] Figure 6 shows the percentages of teachers working with and without credentials

Figure 5a: Percent of newly hired teachers with emergency credentials (ECT) versus full credentials (FCT) in districts[24]
(according to principal reports)

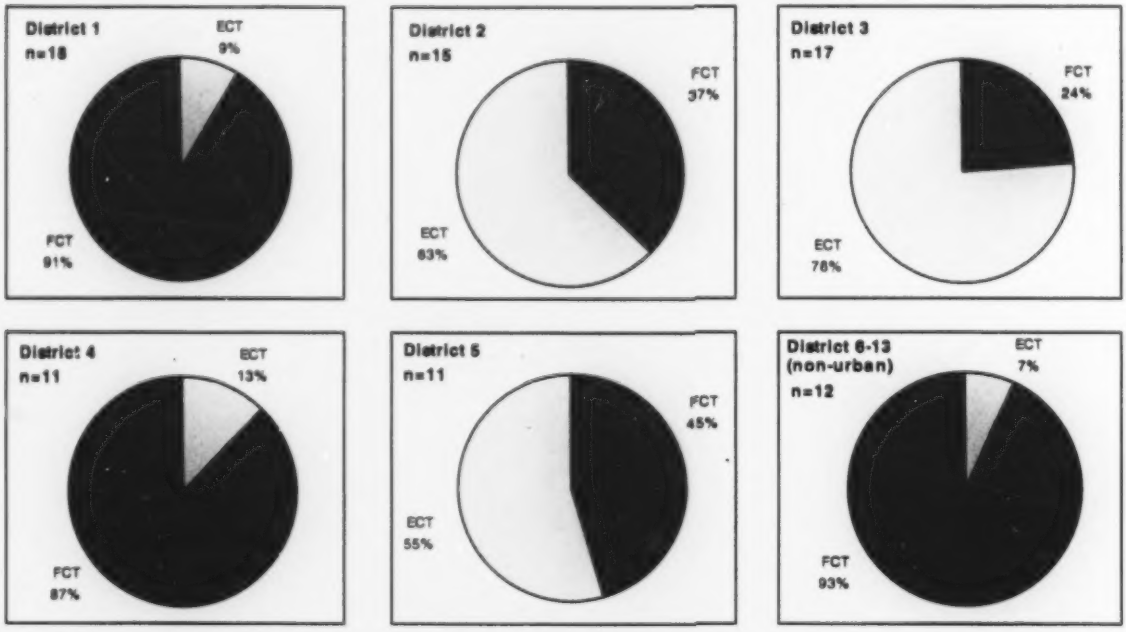
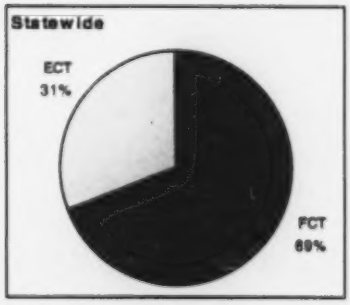


Figure 5b: Percent of Newly Hired Teachers with Emergency Credentials/Waivers (ECT) versus Full Credentials (FCT)
(in districts statewide where enrollment is greater than 20,000)*



*LAO, 1997

for serving LEP students. We highlight only urban districts because the smaller districts serve few, if any, LEP students.

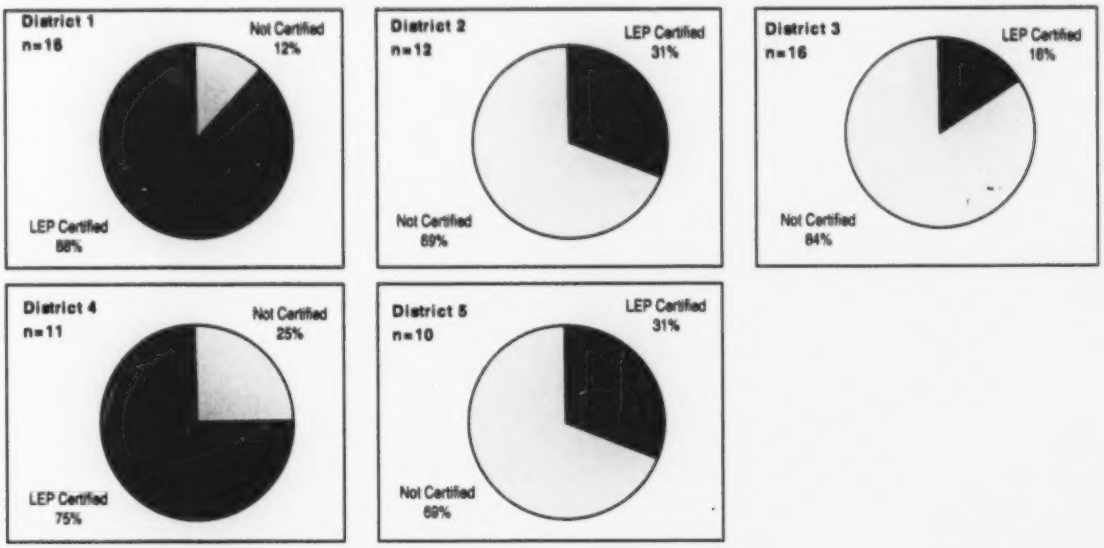
We also queried teachers about the numbers of LEP students they serve and their qualifications for working with them. Three-fourths of all teachers report teaching LEP students — eight LEP students per class, on average. At the time of the survey, only three of the 76 teachers stated they had earned

Certainly, a credential does not guarantee that a teacher is qualified or competent. Conversely, a teacher with an emergency credential may very well be qualified. Future research will need to determine whether student performance is influenced by teachers' experience, credentials and other factors.

Distribution of Credentialed Teachers

In three urban districts, the distribution of qualified—and unqualified—teachers

Figure 6: Percent of newly hired in urban districts teachers with credentials* to provide LEP services (n=number of schools)



* CLAD or B-CLAD

CLAD or BCLAD credentials. Sixty percent of teachers are not bilingual, and more than 40 percent received no training to provide English-language-development support to LEP students. When teachers were asked to rate themselves on preparation for teaching these students, 88 percent said they were "qualified," while the remaining 20 percent maintained they were either "developing the skills" or "in need of more support."

Reconciling teachers' optimism about their qualifications with their lack of training is complex.

disproportionately affects LEP populations. We found that schools serving greater percentages of LEP students are, in fact, hiring a smaller percentage of teachers qualified to provide LEP services than schools serving smaller percentages of these children. As figure 7 shows, particularly in Districts 2, 3, and 5, schools serving percentages of LEP students below the district median are, on average, hiring a greater percentage of credentialed teachers.

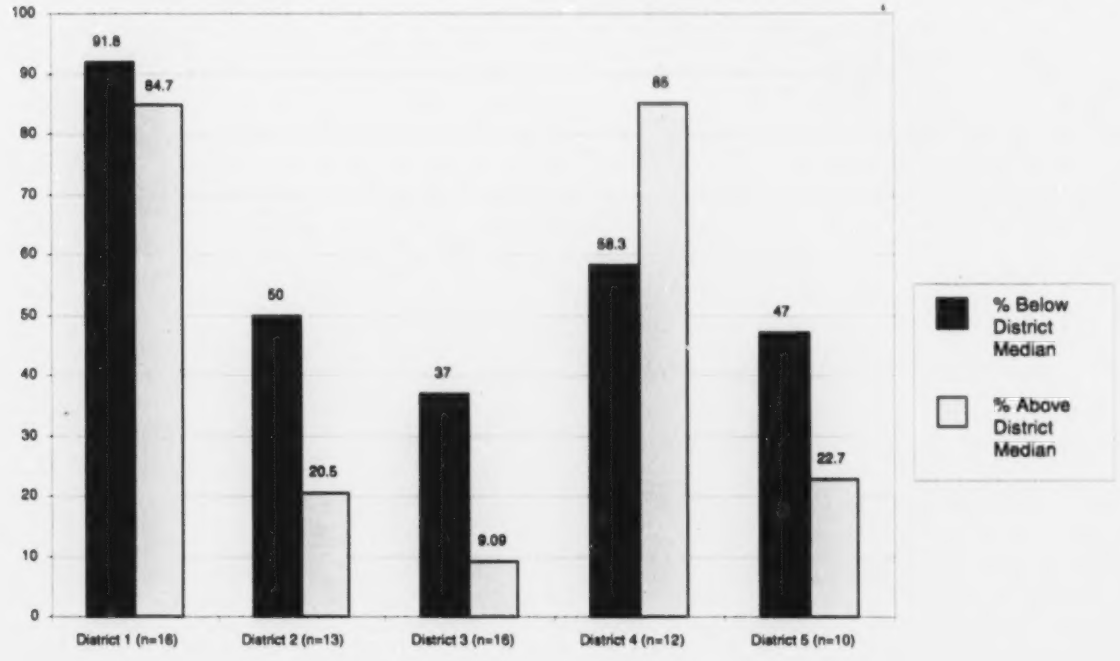
In contrast, smaller schools with fewer LEP students report having less trouble attracting

credentialed teachers—some principals boasted that they actually had "too many" qualified teachers applying. Nevertheless, much of the instruction of LEP students is in the hands of teachers without adequate training.

We also found that districts with flexible hiring and transfer policies saw shifts in their distribution of qualified teachers within districts, creating shortages of qualified staff for certain schools. In one district, for example, administrators report that credentialed teachers in year-round, multi-track schools are electing to transfer to new openings in other schools with traditional, September to June calendars. The problem is that LEP students are concentrated in the more rural part of the district, where schools tend to follow year-round, multi-track schedules. With so many openings in kindergarten through second grade, and an open transfer policy in the district, some teachers elected to transfer to schools with more desirable traditional schedules. As a consequence, schools with the most LEP students were losing large numbers of more qualified teachers. A district coordinator said that one school reportedly lost 17 teachers to schools with traditional calendars. Reflecting a similar shift, an administrator in another district remarked, ". . . Seasoned teachers went to openings in the 'good schools' so there are ever larger proportions of poorly trained teachers clustered in the 'undesirable' schools."

Given the reshuffling of experienced and credentialed teachers, bilingual coordinators

Figure 7: Percent of newly hired teachers with credentials to provide LEP services in urban districts



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expressed concerns about the shortages of qualified teachers assigned to LEP students. In particular, they report difficulty in finding bilingual teachers who speak Vietnamese, Chinese, Laotian, Hmong, Russian, or Persian. One coordinator mentioned that their school was "literally hiring people off the street," while another said her principal traveled to Mexico and recruited from Chicano/Latino conferences across the state. When bilingual teachers did apply, a few principals mentioned that applicants lacked adequate writing skills in both languages.

Shortage of Aides

In addition to teacher quality, some principals and coordinators cite a shortage of teacher aides: nearly two-thirds of principals in the study's sample report being unable to hire any additional aides whatsoever. The stringency of the 20:1 cap has forced some schools to re-organize classrooms in ways they do not consider optimal for the instruction of LEP students. As some bilingual coordinators explained, this shortage resulted in aides being redistributed from lower to upper grades to assist teachers working with more than twenty students, leaving early-primary-grade teachers with little in-class support. One principal explained, "Our school has no bilingual teachers at all, and although aides are used to assist LEP children in their primary language, students are [now] spread out across many different classes, making it nearly impossible to work with students during class hours." As a consequence, some schools report relying more heavily on "pull-out" programs and "clustering" LEP students according to their native language—strategies which permit teachers with bilingual qualifications to serve more students at one time.

One principal explained, "Our school has no bilingual teachers at all, and although aides are used to assist LEP children in their primary language, students are now spread out across many different classes, making it nearly impossible to work with students during class hours."

Nearly half of bilingual coordinators interviewed acknowledge that most LEP students are not receiving any instruction in their primary language. Some expressed concern that clustering practices leave LEP students isolated and tracked, limiting their opportunities to learn from native-English-speaking students.

Inflexibility of 20:1 Cap

By contrast, several principals and district administrators complained that the inflexibility of the 20:1 cap interfered with clustering practices. For example, if a school were to have 23 Spanish speakers, 20 would be grouped together and three would have to be placed elsewhere. So some class placement apparently depends on the 20:1 limit rather than on what is most appropriate for a particular child.

District administrators attribute problems either to shortages of appropriately qualified staff or to the rigid guidelines related to the 20:1 ratio. As one district administrator explained:

> The strict guidelines on the 20:1 student-teacher ratio are very restrictive. LEP students don't come in nice little 20-kid packages. What do you do about the five "spill-over" kids? . . . One response is to hire more bilingual instructional aides to follow the kids where they are placed. Another response is to transport students but we can't really move kids from school to school because we don't have the dollars to do that. We have also tried some (combination) K-1, 1-2 groupings, but that has meant that grade 3, 4, and 5 classes are definitely bigger.

Not surprisingly, how districts created new classes for such overflow students was mentioned as a serious or very serious problem by nearly all district respondents. While some smaller districts report that CSR has no specific effect on the way LEP students are served, others speak of mixed impact, citing one or more of the difficulties described above. In our sample, the problems are worse in our urban districts. In these districts, however, shortages of credentialed and bilingual teachers have long been a problem, so rather than dwelling on teacher shortages, many district administrators voiced optimism that smaller class sizes would translate into more individualized attention and, eventually, improved outcomes for LEP students.

Special Education Programs and Students

Although CSR is not targeted to address the delivery of special education services, we interviewed resource specialists and district administrators to better understand how CSR is affecting special education students. The smaller districts in our sample, however, often reported no effect, or the questions did not apply due to their small population of special education students; so personnel from the urban schools and districts were our primary respondents.

"CSR is one of the most beneficial policies ever."—special education resource specialist

The majority of special education resource specialists are optimistic that special education students will ultimately benefit from CSR. One school resource specialist suggested that "CSR is one of the most beneficial policies ever." Another described smaller classes as "more developmentally appropriate settings for instruction and learning." Some specialists claim that teachers in reduced classes seem more interested than those with larger classes in the methods of identifying and instructing students with special needs. As a consequence, a few specialists report that their role has shifted from one of teacher of special education students to consultant supporting other teachers whose classrooms include mainstreamed special education students. Every specialist we interviewed responded that, with fewer children per class, it is "easier" to mainstream special-needs children into general classrooms and provide a more "inclusive education." District administrators responsible for special education also shared that view.

While many cite benefits such as these, resource specialists, primarily in larger schools, were upset that the initiative does not address students who are "pulled out" of the regular classroom and spend part of their day in larger-sized special education classes. As one specialist from an urban district said, "For general education teachers, districts have gone out of their way . . . for special education, there's nothing."

Space Constraints

Due to a shortage of space, overcrowded special education classrooms have accompanied the implementation of CSR. A few schools found it necessary to combine or eliminate some special education classes. Others made space. For example, one specialist who lost her resource room to general education reports teaching in a storage facility; another is in a closet. Even cafeterias, auditorium stages, and, in one case, a hallway have served as classrooms for special education students. A few resource specialists admit teaching classes with numbers of special education students that reach–or even exceed–the legal limit.

Displacement and lack of adequate facilities was also a clear concern for special education district administrators. In some places, the need for K-3 classroom space created by CSR has meant moving special education centers along with a number of upper-grade classes to smaller locations. Other administrators report that some schools now hold special education classes on a rotating schedule, or in the cafeteria for one period a day. At one school, a counseling service office was moved to a less

appealing location across campus, away from the students it serves.

Transfers Create Shortage of Resource Specialists

Like language development programs, special education has trouble finding enough credentialed teachers. But in urban districts special education is also losing teachers to general education, according to several district advisors and about 10 principals. This "opting out" is particularly problematic because many urban districts already had shortages of credentialed special education teachers prior to CSR. One district temporarily prevented special education teachers from transferring to general education by arguing that the deadline for such transfers had already passed. However, the expectation is that they will simply transfer the following year or as soon as they can.

Special Education Referrals

We asked resource specialists if CSR had affected the number of children referred for special education services. Approximately 80 percent report no change in referrals thus far. Specialists were divided, however, about whether referrals will increase or decrease in the future. Those who predict increases explained that teachers in smaller classes may be better able to identify student problems. Others, predicting decreases, note that teachers are now more able and willing to focus attention on special needs students, making *over-referring* less likely. More research is needed to evaluate the accuracy of these predictions.

Like school resource specialists, some district administrators report no change in the number of referrals. Others report both increases and decreases in referrals. As one administrator described the situation in her district, "Teachers in reduced classes know more about their students because there are fewer students in their classes. In some cases that means they are more ready to refer students to special education, though the idea was that with 20 students and more time spent per student, fewer students would need to be referred."

STAFF DEVELOPMENT

Recognizing that CSR may fail to boost student achievement unless teachers are appropriately trained, California's legislation requires that districts offer staff development on: 1) individualized instruction; 2) effective teaching, including classroom management, in smaller classes; 3) identifying and responding to needs of individual students; and 4) opportunities to build on the individual strengths of pupils.[27] This study suggests that the accelerating recruitment of uncredentialed teachers threatens to lower average teacher quality. Effective inservice training could help offset such a negative effect.

According to 70 percent of teachers interviewed, their district and school professional development programs cover many CSR requirements. The remaining 30 percent indicated that such programs neither mention class size explicitly, nor address skills specific to working with fewer students.

For some schools, it was difficult for teachers to attend training sessions. A lack of funds to hire substitutes and depleted substitute pools meant these schools had problems finding staff to fill in while teachers were away for professional development. In a few cases, students spent part of the day crowded in other classes. One principal noted, "Parents were complaining that teachers were out too frequently."

District Professional Development Complements CSR

District administrators reported that the CSR requirements dovetail well with their district professional development efforts—particularly around early literacy. CSR's broad scope allowed many district-wide professional development efforts to unite under one umbrella and, thus, "do it right, from the start." In some districts, administrators report combining language-development and special education programs to provide a more comprehensive literacy program than anticipated. One district reports having several literacy

programs that include CSR training. Another district is videotaping exemplary K-2 classrooms, and will include the videos as part of a multimedia, tool package for beginning teachers. According to the district administrator, this project "grew out of a need to reach a large number of teachers quickly and most effectively— so in many ways it is a result of the pressures exerted by CSR."

Asked whether teachers participate in professional-development programs tailored for smaller classes, most administrators answered yes. However, when we examined workshop outlines, training agendas and other materials which several district administrators provided, we rarely found references to effective classroom management techniques or instruction in smaller class sizes—though there were references to literacy topics, as mandated.

"... when there is such a large number of new teachers at one time, weaknesses come through much more strikingly."
–district administrator

Clearly, the influx of inexperienced teachers resulting from CSR makes improved professional development programs and beginning teacher support all the more essential. As one administrator notes, "when there is such a large number of new teachers at one time, weaknesses come through much more strikingly."

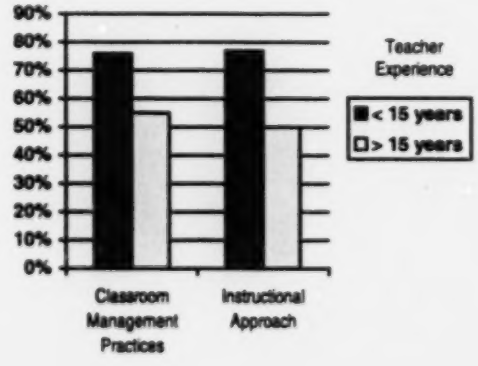
CLASSROOM PRACTICES

Many teachers appear to have rethought their teaching methods due to CSR. A majority report providing more small group instruction, covering material at a faster pace, and improving assessment techniques. Others report changing very little: several teachers are still relying heavily on whole-class instruction and many have not changed their classroom management approach.

Increases in Existing Practices

While nearly two-thirds of teachers responded "yes," when asked if their instructional approach had changed since CSR, they were much more likely to describe their practices in terms of improvement rather than altering their behavior. Interviews with these teachers reveal that rather than adopting different approaches, they now more frequently incorporate practices that they know work well–and they feel they are now implementing them more effectively. Meanwhile, one-third of teachers report no changes in their instructional approach. From their perspective, the key advantage of smaller classes is that it reduces paperwork burdens and discipline problems. Teachers with fewer than 15 years' experience were more likely to report changing their instructional and classroom management strategies than were their more experienced counterparts (see figure 8).

Figure 8: Percent of teachers who report changing classroom strategies



Teachers with fewer than 15 years experience were more likely than those teaching longer to report changing their instructional and classroom management strategies.

Grouping Practices

Changes in grouping practices was another focus of inquiry. Specifically, we asked teachers whether, in the past, they used mixed- or similar-ability groupings. Then, we asked whether CSR altered these practices. More than 80 percent report grouping students of similar ability for some activities, and over 70 percent report not changing grouping practices since CSR. The effectiveness of grouping students by ability level is a controversial issue, which our evidence does not address.[23] But this finding does suggest that CSR has a limited effect on encouraging mixed-ability grouping arrangements.

Although most of our sampled teachers have not altered their grouping strategies as a result of CSR, more than two-thirds maintain that smaller class size allows them to spend additional time in small group instruction. Having fewer students, teachers report, frees up additional space to set up learning centers in the classroom. While some children work cooperatively at these centers, teachers can then provide direct instruction to small groups. They also explained that having fewer children enabled them to work with each group more than once, and spend extra time with children who need it the most. One teacher explained, "Group sizes are smaller so each child can express himself [or herself] freely, so I can really understand what they are feeling and I can then structure class more appropriately." Another teacher responded, "I don't have to rush the kids from group to group; I can [now] learn the kids' hobbies and use [this information] to provide better reinforcers and motivators." According to some teachers, students are consequently moving more frequently from lower to higher-track groups, and the achievement gap between tracks has lessened.

"Group sizes are smaller so each child can express himself [or herself] freely, so I can really understand what they are feeling and I can then structure class more appropriately."—teacher

Sixty-three percent of teachers report spending "more" or the "same" amount of time in whole-class instruction as well. From their perspective, whole-group instruction is more effective because it is easier to manage and facilitate discussion with a class of 20 students. Whether time in small groups is really changing, therefore, remains an empirical question. These results beg the question, once again, of whether CSR is intensifying pre-existing forms of pedagogy or significantly improving the structure of classrooms?

Assessment

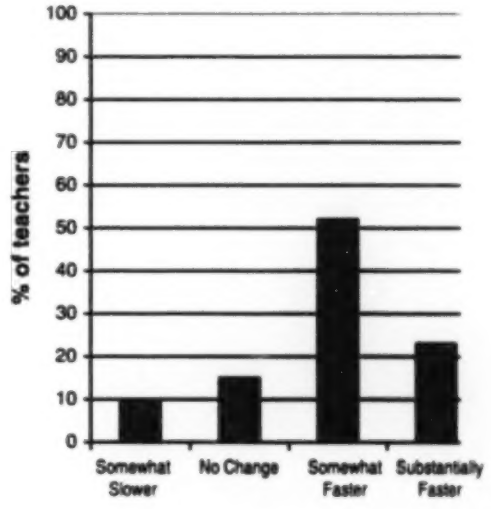
Two-thirds of teachers report that their assessment strategies have changed. Discussions again indicate, however, that their techniques may have been facilitated, rather than changed by CSR. Nearly 95 percent of teachers report having more opportunities to give students feedback. And while many report using the same assessment strategies such as portfolios to evaluate students' work, teachers described such assessments as being more comprehensive since CSR. With fewer children, they responded, it is easier to log students' reading progress, update portfolios, and include more samples of students' work. One teacher explained, "Student records are now much richer, accurate, complete and up-to-date for parent conferences."

This suggests that assessment techniques may be more effective in smaller class sizes.

Instructional Pace

Approximately 70 percent of teachers maintained that CSR has accelerated their pace of instruction, characterizing this change as "somewhat" or "substantially" faster (see figure 9). Most explained that they not only covered more material, but did so more thoroughly by including more activities per

Figure 9: Pace of instruction: How has it changed?



unit. They also report having additional time for reviewing particular subjects without impinging on time needed for other parts of the curriculum. Other teachers–about 10 percent–actually described the pace as "somewhat" slower. When asked to explain the reason for this slower pace, teachers responded that students were asking more questions and generally being more engaged in discussion. Another indicator of higher levels of student engagement is the increase in student motivation: 84 percent of all teachers report that students are more motivated compared to previous years.

Discipline and Classroom Management

Nearly all teachers cite improved classroom climate as a primary advantage of smaller classes. Three of every four respondents report fewer student disruptions; many maintained they spend less time managing and disciplining—and more time

"Since CSR, I am less a policewoman and more like a teacher." –teacher

instructing. As one teacher explained, "Since CSR, I am less a policewoman and more like a teacher." With fewer children, some teachers report that well-behaved students are more likely to discourage disruptive children from inappropriate behavior. The improved classroom environment seems particularly beneficial for "at-risk" students; one teacher mentioned she is "now able to work more closely with [these] children so they don't fall through the cracks."

Whether teachers are in fact changing their practices is impossible to assess from self-reported data. It is often difficult for teachers to articulate what they do in detail. While their perceptions are valuable in and of themselves, only through observations can a determination be made about CSR's influence on teachers' work.

PARENTAL INVOLVEMENT

Many educators believe that parental involvement will improve children's educational success. Certainly, the available research supports the belief that parental participation matters. At the elementary school level, research has demonstrated an association between parental involvement and fewer behavioral problems,[29] lower dropout rates, higher student achievement,[30] and children's perceived level of competence.[31]

Some proponents of CSR expect the initiative to have a positive effect on parental involvement,

although the mechanisms that would facilitate such an effect are far from clear. It might be that parents of children in smaller classes view their schools as being more effective. Hence, they may feel their support is less essential. On the other hand, parents may feel less intimidated about "bothering" a teacher who has fewer students, believing that she will have more time for them and their concerns. In fact, teachers may actually have more time for parents, and may more actively seek their involvement at both the classroom and school levels.

Discussions with district administrators suggest that many districts have tried to involve, as well as inform, parents about the CSR initiative. In most districts, administrators report that parents were informed about the program and the possible implications for their children through various school site councils, PTA or specially designed district meetings. A few districts tried a more collaborative approach by encouraging parents to join advisory committees and work with school governance teams.

Despite such efforts, we found that parental participation in schools has reportedly not changed since class size reduction: Over 80 percent of teachers responded that parents do not spend more time in the classroom (see figure 10); and three of every four report no change in the frequency with which parents attend parent-teacher conferences (see figure 11). A handful of coordinators, one in every six, acknowledge that parents have expressed concern regarding qualifications of teachers and students being re-assigned mid-year. While there is no movement in parental involvement, the majority of parents are excited about CSR: seventy percent of teachers report that parents are "enthusiastic," the other 30 percent, "supportive."

Figure 10: Do parents spend more time in the classroom?

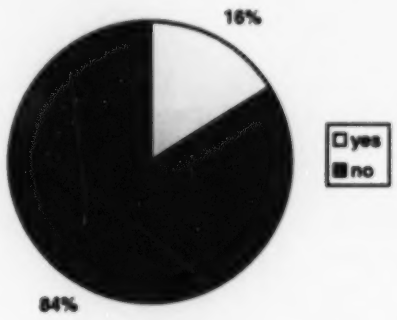
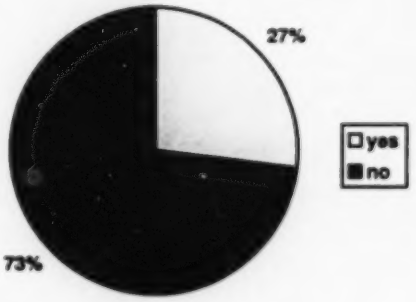


Figure 11: Do parents attend parent-teacher conferences more regularly?



Like teachers, district administrators report that overall, parents have been overwhelmingly in favor of reducing class size. A few district administrators felt they were too far removed from schools so that "not a whole lot filters up—except the negative; but since we haven't heard much of anything, that's a good sign." One district administrator heard that the initiative has inspired more parental confidence in schools:

> "Parents are reportedly more cooperative and supportive because they see that the school is trying to do something positive. With 32:1 ratios, there's more chance for parents to complain that their kid isn't getting what he or she needs. But with 20:1, parents at least feel that the school is trying."

A few district administrators also said parents have raised concerns about their child being moved to another classroom mid-year, or about busing, scheduling changes, combined classes and other strategies used to deal with overflow/slip-over students.

IMPLEMENTATION CHALLENGES

Problems related to facilities and space are well documented.[22] In short, our findings confirm those of other reports. Close to 80 percent of all principals we surveyed report experiencing difficulties implementing CSR. One in four found it necessary to double-up classes, so that two teachers and 40 students end up sharing one classroom. They frequently indicated that a shortage of available bungalows exacerbated the space shortage. When bungalows were available, they arrived in the latter part of the school year. Many principals explained that this severely disrupted staff and students alike. Some principals had to convert auditoriums, libraries, computer labs, and even teachers' lounges into classrooms, and sometimes this resulted in the elimination of educational programs and, occasionally, preschool or after-school child-care programs.

These arrangements may affect upper-elementary students the most. Fourth and fifth grade students use libraries and computer labs more often than their younger student counterparts. The computers, however, are now spread amongst many classrooms, so children cannot easily spend time together doing research projects.

Similarly, because of the shortened timeline for implementation which gave many districts little time to prepare, some district administrators report initial inequities in resources, and on occasion, resentment between teachers in the upper and lower grades. In some districts, larger class sizes, and fewer aides and other resources for upper grade teachers are among the problems created by CSR. For example, one district administrator noted that the new classrooms created for students in lower grades left some upper grade teachers with 35 students (and no aide)–a stark contrast to the first grade down the hall.

Despite the issues raised around the implementation of CSR, more than seventy percent of principals in our study characterized their school's implementation as "fairly easy." Over half responded that CSR has actually "complemented" other reform efforts. Educators seem willing to tolerate the growing pains that have accompanied CSR. They also recognize that the immediacy with which CSR was enacted left them little time to

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"CSR is a wonderful nightmare." –principal

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prepare, creating temporary problems that may otherwise have been avoided. Nearly all respondents are confident that CSR will lead to higher student achievement. As one district administrator characterized it, "All the strengths relate to student gains while all of the challenges relate to teachers, staff, and space." One principal summed it up well, "CSR is a wonderful nightmare."

▸Section 4

POLICY AND RESEARCH IMPLICATIONS

This study raises many important issues about how CSR policy is unfolding and impacting programs and classrooms, as seen by district administrators and school educators. While the data presented above cannot be considered conclusive, as outlined below, each of the four areas of inquiry for this study point to issues policy makers may want to consider, and where researchers may want to probe more deeply in the future.

WHAT ARE THE TRADE-OFFS POSED BY CSR IN SERVING LEP STUDENTS?

In our sample, most teachers and bilingual coordinators report that CSR has already had some clear benefits. Teachers report an increase in oral and reading proficiency skills, though there is no hard data to support this. These positive effects are generally attributed to the increase in one-to-one interaction and more nurturing, learning environments. However, CSR has exacerbated the already unequal distribution and short supply of credentialed teachers. Other primary concerns include the redistribution of aides and the stringent 20:1 cap.

Assessing English Proficiency and Mastery of Academic Content

In order to confirm the positive perceptions reported by school level staff and to determine whether changes to programs for LEP students are necessary, systematic performance data need to be collected. Ideally, future research should examine how LEP student performance ultimately compares on standardized, language-appropriate measures.[33]

While some teachers claim that LEP students are reaching English proficiency quicker, data on transition rates need to be systematically collected. In addition, the question of how well students are learning academic content needs to be addressed. Whether LEP students in smaller classrooms are learning content, as prescribed by the state's new standards, is an empirical question for which no evidence is yet available.[34]

Flexibility in the Assignment of Students and Teachers

Findings from this study seem to support other policy recommendations, which propose flexibility in the 20:1 cap.[35] Given the shortage of credentialed LEP teachers and the 20:1 cap, districts and schools are struggling to provide language-appropriate settings for all LEP students. Some respondents echoed the recommendations of the LAO report (1997), arguing that if the 20:1 ratio could be maintained on average *within schools*, they could provide greater language support to LEP students.

Still, making the cap flexible is not without risks. Special provisions need to be in place ensuring that LEP students are not the only children in classrooms that exceed 20 students. And even if provisions included a maximum class size for LEP classrooms, some students may still fall outside the cut-off. Therefore, adjusting the 20:1 cap must be done cautiously.

With the addition of new classrooms, shortages of teacher aides have also been a problem. In some instances aides are now split among several classrooms or have been transferred altogether to upper-grades with more students. The shortage of credentialed teachers and teacher aides has resulted in districts pursuing a greater mix of approaches (combination, pull-outs, in-class support, and bilingual classrooms) and modifications in how language development services are provided. The distribution of aides between lower and upper primary grades should be considered alongside teacher qualification and assignment issues.

Given such variability in approaches for LEP students, an analysis of their performance must

consider differences in language-acquisition strategies and programs used among classrooms and schools: Are there differences between LEP students who are being pulled-out of CSR classrooms to receive specialized language support and those who remain in classrooms with teachers trained in language-acquisition strategies? Are LEP students better served in a smaller, English immersion classroom than in a larger, bilingual classroom, or a larger classroom with a teacher's aide who speaks the students' native language? Ideally, such analysis would also include classrooms with reduced- and non-reduced class sizes (e.g., in a district where class-size reduction is not fully implemented at one grade level, allowing for a control group). Again, answers to questions about which language programs work best are complicated, even without the added considerations of class size.[36] The language development model used, and how class size reduction is implemented are likely to be confounded. Disentangling the two will be a challenge for any future research.

The influence of teacher-assignment criteria and policies, some predetermined by collective bargaining agreements, may also need to be tracked. An area for future research is how such policies affect the quality of teachers placed in schools and classrooms with LEP students.

WHAT ARE THE TRADE-OFFS POSED BY CSR IN SERVING STUDENTS WITH DISABILITIES?

Resource specialists serving students with disabilities, like their LEP counterparts, generally consider CSR as having a positive affect on their students. Many believe that mainstreaming has been facilitated by 20:1 classrooms and that teachers are now much more willing and able to identify and provide additional support for these students. While problems reported by those providing services to special education students are less extensive than those serving LEP populations, several policy issues with research implications were raised.

First, space normally reserved for special education classrooms has been turned into additional primary grade classrooms. This displacement has led to combining special education classrooms and holding such classes in unusual or less-than-desirable locations (e.g., cafeterias, auditorium stages and hallways). Since it is not certain how pervasive doubling-up and relocation have become, further research is required to determine what, if any, effects these changes may have had on the quality of special education services.

A second issue concerns the exodus of special education resource teachers who have chosen to transfer to general education to fill new positions opened up by CSR, leaving some districts with no qualified special education teachers. Again, the magnitude and the types of inequities occurring among general and special education should probably be monitored, especially by larger, urban districts.

Finally, both school- and district-level respondents report mixed perceptions about the rate at which students were referred to, or identified for special education. Whether the decline or increase in referrals varies, given some other contextual factor (e.g., teacher's experience or grade level taught), is unknown. Since no analysis of the actual rates of referral, identification and assessment is available, this remains an area for future research.

TO WHAT EXTENT ARE TEACHERS' PRACTICES DIFFERENT IN SMALLER CLASSES?

Whether teachers of smaller classes are actually doing things differently than before was one area we focused on when interviewing teachers. Responses were mixed. Pace of instruction and classroom climate were two areas where most teachers report substantial changes. Nearly two-thirds also report working more regularly with

small groups of children and changing their instructional approach. But when we asked about the nature of their specific classroom practices, they were more likely to characterize such differences in terms of increasing—not improving, per se. In general, these findings suggest that smaller class size simply *enhances* instructional strategies already employed by teachers, rather than facilitating fundamental change in classroom practice. Others simply report not changing at all.

Clearly, more research, particularly classroom observations, is needed to clarify what changes are occurring in smaller classrooms and why. Our evidence does raise an interesting question: Is CSR more of an organizational reform than an instructional intervention? Obviously, reducing class size alone may not change instructional practices, but it may allow teachers to do more of what they know works. Staff development programs may be needed to train or re-train teachers to work differently with students in smaller classes.

CSR funds afford districts an opportunity to enhance and leverage their pre-existing professional development activities. Districts report that professional development is tailored to the needs of teachers in smaller classrooms, with an emphasis on individualized literacy instruction. But very little of the content we reviewed was CSR-specific. Whether there are different resources or instructional approaches better suited for teachers in smaller classes is a question for future research. Systematic observation of classroom practices may also shed light on whether teachers are actually implementing new strategies as a result of professional development.

WHAT CHANGES IN PARENTAL INVOLVEMENT SHOULD BE EXPECTED AND WHY?

Our findings on parental involvement provide little guidance about how best to proceed in tracking its impact on CSR implementation and student outcomes. While this study confirms anecdotal evidence indicating parental support for CSR, the degree to which that enthusiasm actually translates into something tangible, such as more involvement or interaction with schools, remains unknown. Although teachers have fewer parents to contact since class size was reduced, our findings suggest that teachers and parents are not communicating more frequently. Approximately 75 percent of teachers report that parents do not spend more time in the classroom or more regularly attend parent-teacher conferences. This issue warrants closer attention, considering the large percentage of teachers who do not speak their students' native language, which is likely to make involving parents more difficult. The extent to which parents have compelled districts to pursue one direction over another when implementing class size reduction (e.g., given space constraints, deciding whether to go year-round or reduce classes in only two or three grade levels), and the mechanisms which made parent influence possible, is another area for future research.

▸Section 5

CONCLUSION

The primary purpose of this study was to inform a more comprehensive, long-term evaluation of CSR. In doing so, we have highlighted key issues for future researchers and policy makers. By focusing on perceptions of school-level educators, we provide evidence of how CSR unfolded in particular schools across California in its first year of implementation. Still, the limitations of self-reported data preclude us from offering definitive conclusions. We have delineated specific areas that warrant more careful evaluation. These include: (1) how CSR and district transfer policies are altering the distribution of teachers with credentials; (2) how LEP and special education student populations are being affected; (3) how students are grouped and instruction organized; (4) how staff development can be targeted for smaller classes; and (5) how parental involvement may be improved.

Many difficulties described in this report stem from the inadequate time that districts and schools had to prepare for CSR. In future studies, researchers must distinguish between potential long-term difficulties with CSR and those associated with its hasty implementation. Problems regarding teacher qualifications and facilities, for example, are unlikely to go away.

District officials, teachers, principals, and coordinators alike generally believe CSR will lead to higher student achievement, and most seem to view the initiative as positive for public education. Whether CSR proves to be the crucial lever for improving California's schools is clearly a question for which there will be no simple answers.

ENDNOTES

[1] California Legislative Analyst's Office.

[2] Miller et al

[3] California Education Policy Seminar and California State University (CSU) Institute for Education Reform.

[4] Carlos et al.

[5] California Legislative Analyst's Office.

[6] McRobbie (1996 & 1997).

[7] Glass et al.; Finn & Achilles; McGiverin et al.; Mosteller et al.

[8] Glass et al.; Mosteller et al.

[9] Tomlinson; Prais; Hanushek; Viadero.

[10] Finn, *Class Size: What Does Research Say?*

[11] IBID.

[12] Illig (1996); Kirst; McRobbie (1997).

[13] Cahen et al.; Murnane & Levy 1996

[14] Cahen et al.

[15] Coleman; Comer; Butless.

[16] California Legislative Analyst's Office.

[17] Blattner et al.

[18] IBID.

[19] Illig (1997).

[20] Turley et al.; McKendrick.

[21] California Legislative Analyst's Office; Blattner et al.; Illig (1997).

[22] EdSource.

[23] Gold.

[24] IBID.

[25] Some principals report hiring teachers considered "A" or "B" fluent, terms used to describe teachers without credentials but conversant in a non-English language. In this study, however, only teachers with state certification are considered qualified to provide LEP services.

[26] We use the term emergency credential to refer to all teachers who, at the time of our study, were teaching with only waivers or emergency permits, and were, therefore, not fully credentialed.

[27] California's class-size reduction law is the lion's share of a package of education legislation that included several bills focused on improved reading. Major provisions are found in SB 1777, amended by SB 1414; SB 1789–facilities. Major provisions of the companion reading initiative are found in AB 170, AB 1504, AB 3482; AB 3075 and AB 1178–preservice.

[28] Barr & Dreeban; Kulik; Mosteller et al..

[29] Comer.

[30] Muller; Stevenson et al; Klimes-Dougan et al.

[31] Wagner et al.

[32] Illig (1997); California Legislative Analyst's Office; Blattner et al.

[33] Gandara; August & Hakuta.

[34] This issue is further complicated by a recent decision by the California State Board of Education–which allows districts to determine whether or not to offer bilingual education–and by Prop. 227, a ballot initiative that , if passed, will replace bilingual education with English immersion.

[35] California Legislative Analyst's Office.

[36] Gándara; August & Hakuta.

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